

FIELD STATION ANALYSIS  
Water Year 2007

PTCKSLCO Pot Creek at State Line near Vernal, UT

**Equipment:** Stevens A-71 stage recorder and Sutron Shaft Encoder 5600-0530 housed in a 42-inch diameter corrugated metal pipe on left bank. Well is equipped with two 2-inch intakes of lengths 14.5 feet and 17.5 feet at elevations 0.52 feet and 1.55 feet (top of pipe), and are equipped with standard inside flushing devices. Shaft encoder is connected to a high data rate Sutron Satlink data collection platform (DCP), with satellite telemetry. Satlink DCP is in a gray housing box attached to the side of the stilling well. Satlink DCP, shaft encoder and associated equipment installed on April 19, 2005. Outside staff gages located on right and left bank with range of 0.00 to 3.33 ft and primary reference gage mounted on inside of well.

**Hydrologic Conditions:** The basin consists of moderate terrain near the gage station and originates in steep mountainous terrain in the Diamond and Uintah Mountain ranges. In the vicinity of the gage station, the channel slope is moderate with some sinuosity. The streambed is composed of sandstone and silt.

**Gage Height Record:** Primary record is hourly data developed from the DCP data log of 15-minute observations. Continuous gage height records were kept from October 1, 2006 through September 30, 2007. The record is complete, with the exception of several 15-minute data points missing from the satellite data (on February 1 and 24, 2007 and April 1, 2007, which coincided with no flow periods at the site). Missing values, therefore, were assumed to be zero.

**Datum Corrections:** None applied. No levels run this water year.

**Rating:** The control consists of an artificial weir type structure consisting of sandstone rocks grouted in place. Channel is straight for 100-feet upstream and bends to the left just below control before straightening for 150 feet downstream. Left bank is subject to overflow at higher stages. Right bank is almost vertical sandstone rock. Left bank covered with sagebrush and other native vegetation.

Rating No. 6 was created on November 16, 2005 and used for Water Year 2007 (WY2007). The highest measurement made at this site by the State Engineer's Office was 113 cfs taken on April 27, 1998. Flows above 226 cfs (twice the highest reliable measurement) on this rating should be considered poor record. The maximum daily discharge recorded at the site during the entire period of record (1957 - 2007) was 286 cfs on April 7, 1962.

This site is dry most of the year and the creek generally flows only in response to storm events and during the spring runoff period. Flow was recorded at the site on 21 days during WY2007: October 6-7, 9, and 17, 2006; February 11; March 7-

STATE OF COLORADO  
DIVISION OF WATER RESOURCES  
OFFICE OF STATE ENGINEER

STA NO. PTCKSLCO

POT CREEK AT STATE LINE NEAR VERNAL, UTAH

PROCESS DATE: 16-OCT-2007 16:35

Rating Table PTCKSLC006 USED FROM 01-OCT-2006 TO 30-SEP-2007

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	.10	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	.04	0	0	0	0	0	0	0	0	0	0	0
7	.14	0	0	0	0	.17	0	0	0	0	0	0
8	0	0	0	0	0	.07	0	0	0	0	0	0
9	.11	0	0	0	0	.11	0	0	0	0	0	0
10	0	0	0	0	0	1.3	0	0	0	0	0	0
11	0	0	0	0	.22	5.5	0	0	0	0	0	0
12	0	0	0	0	0	8.5	0	0	0	0	0	0
13	0	0	0	0	0	6.8	0	0	0	0	0	0
14	0	0	0	0	0	3.8	0	0	0	0	0	0
15	0	0	0	0	0	1.7	0	0	0	0	0	0
16	0	0	0	0	0	.29	0	0	0	0	0	0
17	.14	0	0	0	0	.01	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	.03	0	0	0	0	0	0
28	0	0	0	0	0	.60	0	0	0	0	0	0
29	0	0	0	0	---	.04	0	0	0	0	0	0
30	0	0	0	0	---	0	0	0	0	0	0	0
31	0	---	0	0	---	.01	---	0	---	0	0	---
TOTAL	.43	0	0	0	.22	28.93	0	.10	0	0	0	0
MEAN	.014	0	0	0	.008	.93	0	.003	0	0	0	0
AC-FT	.9	0	0	0	.4	57	0	.2	0	0	0	0
MAX	.14	0	0	0	.22	8.5	0	.10	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
CAL YR 2006	TOTAL	605.65	MEAN	1.66	MAX	80	MIN	0	AC-FT	1200		
WTR YR 2007	TOTAL	29.68	MEAN	.081	MAX	8.5	MIN	0	AC-FT	59		

MAX DISCH: 26.6 CFS AT 19:30 ON Mar. 12, 2007 GH 1.52 FT. SHIFT 0.03 FT.  
MAX GH: 1.52 FT. AT 19:30 ON Mar. 12, 2007

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.

STATE OF COLORADO  
DIVISION OF WATER RESOURCES  
OFFICE OF STATE ENGINEER

STA NO. PTCKSLCO/09235800

POT CREEK AT STATE LINE NEAR VERNAL, UT

PROCESS DATE: 13-DEC-2006 16:15

Rating Table PTCKSLCO06 USED FROM 01-OCT-2005 TO 30-SEP-2006

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	11	.61	2.5	0	0	0	0
2	0	0	0	0	0	.09	.75	1.8	0	0	0	0
3	0	0	0	0	0	0	.18	1.6	0	0	0	0
4	0	0	0	0	0	0	0	1.2	0	0	0	0
5	0	0	0	0	0	0	.32	1.1	0	0	0	0
6	0	0	0	0	0	0	1.6	2.4	0	0	0	0
7	0	0	0	0	0	0	.83	5.2	0	0	0	0
8	0	0	0	0	0	0	.25	6.8	0	0	0	0
9	0	0	0	0	0	0	12	7.8	0	0	0	0
10	0	0	0	0	0	0	70	6.4	0	0	0	0
11	0	0	0	0	0	0	80	5.1	0	0	0	0
12	0	0	0	0	0	0	59	2.9	0	0	0	0
13	0	0	0	0	0	0	40	1.8	0	0	0	0
14	0	0	0	0	0	0	38	1.0	0	0	0	0
15	0	0	0	0	0	0	37	.36	0	0	0	.58
16	0	0	0	0	0	0	35	.07	0	0	0	.22
17	0	0	0	0	0	0	29	0	0	0	0	0
18	0	0	0	0	0	0	24	0	0	0	0	0
19	0	0	0	0	0	0	21	0	0	0	0	0
20	0	0	0	0	0	0	16	0	0	0	0	0
21	0	0	0	0	0	0	13	0	0	0	0	0
22	0	0	0	0	0	0	8.8	0	0	0	0	0
23	0	0	0	0	0	0	5.5	0	0	0	0	0
24	0	0	0	0	0	0	5.2	0	0	0	0	0
25	0	0	0	0	0	.06	5.5	0	0	0	0	0
26	0	0	0	0	0	0	5.8	0	0	0	0	0
27	0	0	0	0	0	0	5.3	0	0	0	0	0
28	0	0	0	0	4.9	0	4.6	0	0	0	0	0
29	0	0	0	0	---	5.5	3.8	0	0	0	0	0
30	0	0	0	0	---	6.4	4.0	0	0	0	0	0
31	0	---	0	0	---	1.4	---	0	---	0	0	---
TOTAL	0	0	0	0	4.9	24.45	527.04	48.03	0	0	0	.80
MEAN	0	0	0	0	.17	.79	17.6	1.55	0	0	0	.027
AC-FT	0	0	0	0	9.7	48	1050	95	0	0	0	1.6
MAX	0	0	0	0	4.9	11	80	7.8	0	0	0	.58
MIN	0	0	0	0	0	0	0	0	0	0	0	0

CAL YR 2005	TOTAL	275.52	MEAN	0.75	MAX	15	MIN	0	AC-FT	546
WTR YR 2006	TOTAL	605.22	MEAN	1.66	MAX	80	MIN	0	AC-FT	1200

MAX DISCH: 87.1 CFS AT 22:30 ON Apr. 10, 2006 GH 2.4 FT. SHIFT 0.03 FT.  
MAX GH: 2.4 FT. AT 22:30 ON Apr. 10, 2006

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.